



LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA

BULLETIN No. 344

SPIRIT OF CAMPHOR



NOTES AND COMMENTS.

Under this heading, as occasion arises, the Bulletins issued by this Department will contain, as an appendix, such comment as may seem necessary or advisable upon matters relating to the work of the Department in connection with the administration of the Adulteration Act, the Fertilizers Act, the Feeding Stuffs Act or the Proprietary Medicines Act.

It frequently happens that correspondents ask information regarding the above Acts, of such a nature that the matter in question possesses general interest, and comment upon it would prove acceptable and useful to others than the immediate questioner. In such cases the reply may find a place in these columns. For convenience of reference these notes will be numbered in series.

A. MCGILL,
Chief Analyst.

LABORATORY
OF THE
INLAND REVENUE DEPARTMENT
OTTAWA, CANADA

BULLETIN No. 344.

SPIRIT OF CAMPHOR.

OTTAWA, June 27, 1916.

J. U. VINCENT, Esq.,
Deputy Minister of Inland Revenue.

Sir,—I beg to hand you a report upon Spirit of Camphor.

This article is defined by the British Pharmacopœia (1914) as consisting of 100 parts by volume of 90 per cent alcohol, containing 10 parts by weight of Camphor in solution.

The specific gravity should be between 0.845 and 0.850; and the optical rotation should not be less than 4° at 15.5° Centigrade.

The formula is essentially identical with that given in the edition of 1898.

Our last general inspection of Spirit of Camphor is reported in Bulletin No. 178 (March, 1909). On that occasion, 74 samples were examined as regards alcohol only; and it was considered fair to accept 75 per cent of alcohol as a reasonable minimum in the product as dispensed. This allows a very considerable margin for evaporation due to repeated opening of the container.

The Camphor content should approximate 10 per cent (weight in volume); and although Camphor is more or less volatile from solution, it is relatively less so than alcohol, so that its proportion is likely to increase, rather than diminish in stock solutions. I have therefore considered that anything below 8.5 per cent weight in volume indicates an adulterated article.

The present report deals with 168 samples purchased as Spirit of Camphor. Five samples are evidently accepted by our inspectors in mistake, four of these accepted by Mr. Gendreau being Gum Camphor, and one (No. 62916) being alcohol only.

Nineteen of the remaining samples depart so slightly from the Standard as above interpreted, that I have passed them. The following synopsis presents the detailed results:—

Meet legal requirements..	126	samples.
Passed, as within narrow limits..	20	"
Adulterated, as deficient in camphor..	5	"
" " both..		
" camphor and alcohol..	9	"
" as containing methyl alcohol..	3	"
Purchased by mistake..	5	"
Total..	168	

The substitution of methyl alcohol in whole or in part for ethyl alcohol in Spirit of Camphor, necessarily constitutes adulteration; under the Adulteration Act. It is also forbidden by Section 7 of the Amendment to the Inland Revenue Act, dated April 10, 1908, unless the presence of methyl alcohol is declared upon the label of the container.

I am informed that there is a certain demand for a low-priced Spirit of Camphor, for veterinary use, and that this is frequently prepared with denatured alcohol, or with Columbian Spirit. However this may be, it furnishes no excuse for offering the article as pharmacopeal Spirit of Camphor.

I beg to recommend publication of this report as Bulletin No. 344.

I have the honour to be Sir,
Your obedient servant,

A. McGILL,
Chief Analyst.

BULLETIN No. 34

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.	Name and Address of Manufacturer or Furnisher as given by the Vendor.	
					Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF PRINCE EDWARD ISLAND—

1915.								
Dec. 24	Spirit of Camphor	60415	Johnson & Johnson, Charlottetown.	6 oz. .	90	Vendors		
" 30	" . .	60416	E. A. Foster, Charlottetown . .	6 " . .	60	Lyman's, Ltd., Montreal.		
" 30	" . .	60417	McDonald and McKinnon, Charlottetown.	6 " . .	90	Vendors		
" 30	" . .	60418	The McKinnon Drug Co., Charlottetown.	6 " . .	90	"		
" 30	" . .	60419	J. G. Jamieson, Charlottetown.	6 " . .	90	"		
" 30	" . .	60420	Estate of C. D. Rankin, Charlottetown.	6 " . .	60	"		

DISTRICT OF NEW BRUNSWICK—

Dec. 13	Spirit of Camphor	66215	National Drug and Chem. Co., St. John.	6 oz. .	60	Vendors		
" 27	" . .	66216	E. Clinton Brown, St. John . .	6 " . .	48	Vendor		
" 27	" . .	66217	Moore's Drug Store, St. John . .	6 " . .	60	Vendors		
" 29	" . .	66218	Hazen J. Dick, St. John	6 " . .	60	Vendor		
1916.								
Jan. 6	" . .	66219	George F. Crawford, St. Stephen.	6 " . .	60	"		
" 11	" . .	66220	Charles H. Burchill, Fredericton.	6 " . .	60	"		
" 13	" . .	66221	The Baird Co., Ltd., Woodstock.	6 " . .	30	Vendors		
Feb. 8	" . .	66222	B. J. Sharp, Sussex	" . .	50	Vendor		
" 9	" . .	66223	Fairweather Bros., Moncton . .	6 " . .	60	Vendors		
" 11	" . .	66224	C. P. Hickey, Chatham	6 " . .	50	Vendor		

DISTRICT OF NOVA SCOTIA—

Feb. 18	Spirit of Camphor	64361	National Drug Co., Halifax . .	6 oz. .	53	Vendors		
" 18	" . .	64362	C. A. Barnstead, Halifax . .	6 " . .	60	Vendor		
" 18	" . .	64363	Estate of J. R. Rawley, Halifax . .	6 " . .	65	"		
" 23	" . .	64364	Brown Bros. & Co., Halifax . .	6 " . .	50	"		

SPIRIT OF CAMPHOR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.						Remarks and Opinion of the Chief Analyst.	
	Specific Gravity of Sample.	Polarization in 2 dm. Tube at 20° C.		Camphor.		Strength of Alcohol used.		
		Degrees Vernz.	Angular Ingress	Per cent. by Weight.	Grammes per 100c.			
WM. A. WEEKS, INSPECTOR.								

.....	0·8302	21·0	7·28	11·0	9·2	92	Ethyl...	60415	Meets legal requirements.
.....	0·8433	21·3	7·30	11·2	9·4	91	" ..	60416	" "
.....	0·8385	18·4	6·38	9·7	8·1	92	" ..	60417	Slightly low in Camphor.
.....	0·8365	21·1	7·32	11·1	9·3	92	" ..	60418	Pass. Meets legal requirements.
.....	0·8505	25·4	8·81	13·3	11·3	89	" ..	60419	" "
.....	0·8368	22·4	7·76	11·8	9·8	93	" ..	60420	" "

JOHN C. FERGUSON, INSPECTOR.

.....	0·8380	24·8	8·60	13·0	10·9	93	Ethyl...	66215	Meets legal requirements.
.....	0·8358	21·6	7·49	11·4	9·5	93	" ..	66216	" "
.....	0·8380	24·1	7·7	12·7	10·6	93	" ..	66217	" "
.....	0·8364	24·1	7·7	12·7	10·6	93	" ..	66218	" "
.....	0·8349	20·4	7·07	10·7	8·9	93	" ..	66219	" "
.....	0·8402	20·4	7·07	10·7	9·0	92	" ..	66220	" "
.....	0·8554	17·7	6·13	9·3	7·9	86	" ..	66221	Slightly low in Camphor.
.....	0·8367	25·2	8·74	13·3	11·1	94	" ..	66222	Pass. Meets legal requirements.
.....	0·8543	24·9	8·66	13·1	11·1	88	" ..	66223	" "
.....	0·8501	14·8	5·13	7·8	6·6	87	" ..	66224	Low in camphor. Adulterated.

R. J. WAUGH, INSPECTOR.

.....	0·8470	20·9	7·27	11·0	9·3	80	Ethyl..	64361	Meets legal requirements.
.....	0·8377	21·5	7·45	11·3	9·4	93	" ..	64362	" "
.....	0·8334	12·5	4·34	6·4	5·3	92	" ..	64363	Low in Camphor. Adulterated.
.....	0·8385	22·3	7·73	11·7	9·8	92	" ..	64364	Meets legal requirements.

BULLETIN No. 344—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF QUEBEC CITY—

1915.							
Dec. 15	Esprit de camphre.	56586	J. Masson, 808 St. Valier, Quebec.	6 oz.	60	Vendor.....	.....
" 15	"	56587	J. B. Giroux, 387 St. Joseph, Quebec.	6 "	60	" .....	.....
" 15	"	56588	A. Leclere, 243 St. Joseph, Quebec.	6 "	45	" .....	.....
" 15	"	56589	J. P. Plamondon, 122 St. Joseph, Quebec.	7 "	40	" .....	.....
" 16	"	56590	A. E. Franceur, 379½ St. Jean, Quebec.	6 "	60	" .....	.....
" 16	"	56591	L. Jolicœur, 338 St. Jean, Quebec.	6 "	50	" .....	.....
" 16	"	56592	Lachervotiere, 224 St. Jean, Quebec.	6 "	45	" .....	.....
" 16	"	56593	J. E. Turcotte, 167 St. Jean, Quebec.	6 "	50	" .....	.....
" 16	"	56594	J. E. Dubé, 43 St. Jean, Quebec.	6 "	50	" .....	.....
" 16	"	56595	W. E. Rogers, 44 de la Fabrique, Quebec, Quebec.	6 "	75	" .....	.....

DISTRICT OF QUEBEC PROVINCE—

1915.							
Dec. 23	Camphre...	3669	G. E. Dussault, Ste. Marguerite.	3 oz.	30	.....	.....
1916.							
Jan. 14	" ...	3678	Dorchester Lumber, Ste. Malachi.	3 "	30	.....	.....
1915.							
Dec. 22	" ...	4449	Dr. A. Cloutier, St. Charles	6 "	45	Vendor.....	.....
" 23	" ...	72209	Dame P. Richard, Berthier...	4 "	40	Unknown.....	.....
" 28	" ...	72220	Elzear Boulet, Cap. St. Ignace	4 "	40	.....	N. Rioux & Cie, Que.
" 29	" ...	72227	Dame A. Bernier, St. Thomas	4 "	40	.....	Langlois & Paradis, Quebec.
" 30	" ...	72232	Deles H. & A. Talbot, Montmagny.	4 "	40	.....	J. E. Livernois, Quebec.
" 18	Esprit de camphre.	345	Eugene Fournier, St. Jerome	6 "	75	Vendor .....	.....
" 28	"	355	Edmond Grignon, St. Agathe des Monts.	6 "	45	" .....	.....
" 28	"	356	Omer St. Amour, St. Agathe des Monts.	6 "	75	" .....	.....

SPIRIT OF CAMPHOR.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.							Remarks and Opinion of the Chief Analyst.	
	Specific gravity of Sample.	Polarization in 2 dm. tube at 20° C.		Camphor.		Strength of Alcohol used.	Kind of Alcohol used.		
		Degrees Venta.	Angular Degrees.	Per cent by weight.	Grammes per 100 cc.				
								No. of Sample.	

F. X. W. E. BELAND, INSPECTOR.

.....	0·8406	29·2	10·13	p. c.	p. c.	Ethyl ..	56586	Meets legal requirements.
.....	0·8482	21·1	7·32	11·1	9·4	89	" ..	56587
.....	0·9342	10·0	3·47	5·3	4·9	51	" ..	56588
.....	0·8365	22·0	7·63	11·6	9·7	93	" ..	56589
.....	0·8391	22·7	7·87	11·9	10·0	93	" ..	56590
.....	0·8643	29·2	10·13	15·3	13·3	86	" ..	56591
.....	0·8852	14·3	4·96	7·5	6·6	74	" ..	56592
.....	0·8350	24·5	8·10	12·9	10·8	94	" ..	56593
.....	0·8403	21·9	7·60	11·6	9·7	92	" ..	56594
.....	0·8357	10·3	3·57	5·4	4·6	73	" ..	56595

J. E. AUDET, O. BROCHU, T. GENDREAU & N. CADIEUX, TEMPORARY INSPECTORS

.....	0·8829	27·4	9·50	14·4	12·7	78	Methyl ..	3669	Contains Methyl alcohol. Adulterated.
.....	0·9084	19·6	6·80	10·3	9·4	64	Ethyl ..	3678	Low in alcohol. Pass.
.....	0·8930	19·5	6·76	10·2	9·1	71	" ..	4449	" "
.....	These samples are solid gum camphor.					72209	Gum Camphor.		
.....	"	"	"	"	"	72220	"		
.....	"	"	"	"	"	72227	"		
.....	"	"	"	"	"	72232	"		
.....	0·8461	29·0	10·37	15·7	13·3	91	Ethyl ..	345	Meets legal requirements.
.....	0·8412	25·6	12·94	18·7	15·7	94	" ..	355	" "
.....	0·8373	20·5	7·11	10·8	9·0	93	" ..	356	" "

BULLETIN No. 344

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cost. Cents.	Manufacturer.	Furnisher.

DISTRICT OF THREE RIVERS -

1915.							
Dec. 14	Esprit de camphore.	69188	A. L. Boucher, Joliette.	6 oz.	1.00	Vendor . . . . .	.....
1916.							
Jan. 7	Spirit of Camphor.	69229	L. P. Normand, Three Rivers.	6 " . . .	75	" . . . . .	.....
" 7	"	69230	J. A. Peltier, Three Rivers.	6 " . . .	75	" . . . . .	.....
" 7	"	69231	R. W. Williams, Three Rivers.	6 " . . .	75	" . . . . .	.....

DISTRICT OF EASTERN TOWNSHIPS -

Feb.	2	Spirit of Camphor.	67522	B. N. Robinson, Coaticook	6 oz.	50	Vendor . . . . .	.....
"	3	"	67523	W. H. Griffith, Sherbrooke.	6 "	60	.....	.....
"	3	"	67524	F. T. Ansell, Sherbrooke	6 "	50	.....	.....
"	3	"	67525	A. E. Duberger, Sherbrooke	6 "	60	" . . . . .	.....
"	3	"	67526	E. C. Fraser, Sherbrooke	6 "	50	" . . . . .	.....
"	3	"	67527	W. J. McKinley, Lennoxville.	5 "	45	" . . . . .	.....
"	10	"	67528	Dr. Bicque, Magog	6 "	75	" . . . . .	.....
"	10	"	67529	Dr. J. West, Magog	6 "	75	" . . . . .	.....
"	11	"	67530	L. E. Browne, Granby	6 "	35	" . . . . .	.....
"	11	"	67531	J. E. Dozois, Granby	6 "	50	" . . . . .	.....

DISTRICT OF MONTREAL -

Feb.	8	Spirit of Camphor	67131	E. Bernard, 304 Hibernia St., Montreal.	6 oz.	75	Vendor . . . . .	.....
"	8	"	67132	Reynolds & Christie, 585 Wellington St., Montreal.	6 "	75	" . . . . .	.....
"	9	"	67133	A. C. Paquette, 600 Wellington St., Montreal.	6 "	90	" . . . . .	.....
"	9	"	67134	Victor Richmond, 701 Wellington St., Montreal.	6 "	60	" . . . . .	.....
"	9	"	67135	Dr. Ste. Marie, 447 Church Ave., Verdun.	6 "	60	" . . . . .	.....
"	9	"	67136	Dr. V. Rheume, 183 Church Ave., Verdun.	6 "	60	" . . . . .	.....
"	9	"	67137	Pharmacie Robert, 1314 Wellington St., Verdun.	6 "	60	" . . . . .	.....

SPIRIT OF CAMPHOR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								Remarks and Opinion of the Chief Analyst.	
	Specific Gravity of Sample.	Polarization in 2 dm. Tube at 20° C.		Camphor.		Kind of Alcohol used.	No. of Sample.			
		Degrees Venz.	Angular Degrees.	Per cent. by Weight.	Grammes per Dec.					

DR. V. P. LAVALLEE, INSPECTOR.

.....	0·8340	22·7	7·87	p. c.	11·9	9·9	94	Ethyl..	69188	Meets legal requirements.
.....	0·8344	23·3	8·08	12·2	10·2	94	" ..	69229	"	"
.....	0·8338	23·2	8·05	12·2	10·1	94	" ..	69230	"	"
.....	0·8337	19·2	6·66	10·1	8·4	93	" ..	69231	"	"

J. J. COSTIGAN, ACTING INSPECTOR.

.....	0·8880	14·4	4·90	7·6	6·7	72	Ethyl..	67522	Low in camphor and alcohol. Adulterated.
.....	0·8353	21·6	7·49	11·4	9·5	93	" ..	67523	Meets legal requirements.
.....	0·8401	29·9	10·37	15·7	13·2	93	" ..	67524	" "
.....	0·8247	17·9	6·21	9·4	7·8	93	" ..	67525	Slightly low in camphor,
.....	0·8887	32·5	11·28	17·1	15·2	75	" ..	67526	Pass. Low in alcohol. Camphor
.....	0·8822	22·0	7·64	11·6	10·2	76	" ..	67527	very high. Pass. Low in alcohol. Pass.
.....	0·8364	19·8	6·86	10·4	8·7	93	" ..	67528	Meets legal requirements.
.....	0·8383	21·9	7·60	11·5	9·6	92	" ..	67529	" "
.....	0·9136	20·0	6·94	10·5	9·6	62	" ..	67530	Low in alcohol. Pass.
.....	0·8894	11·4	3·96	6·0	5·3	72	" ..	67531	Low in alcohol and camphor. Adulterated.

D. J. KEARNEY, INSPECTOR.

.....	0·8422	30·5	10·43	15·7	13·3	93	Ethyl..	67131	Meets legal requirements.
.....	0·8484	22·6	7·84	11·9	10·1	89	" ..	67132	" "
.....	0·8369	27·3	9·46	14·3	12·0	94	" ..	67133	" "
.....	0·8438	25·3	8·77	13·3	11·2	91	" ..	67134	" "
.....	0·8580	23·7	8·22	12·4	10·7	96	" ..	67135	" "
.....	0·9373	9·2	3·19	4·8	4·5	49	" ..	67136	Low in alcohol and camphor. Adulterated.
.....	0·8627	21·1	7·39	11·1	9·6	84	" ..	67137	Meets legal requirements.

BULLETIN No. 344-

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF MONTREAL--

1916.							
Feb. 9	Spirit of Camphor.	67138	W. Lessard, 1400 Wellington St., Verdun.	6 oz.	60	Vendor.	.....
" 10	"	67139	J. A. D. Gadbout, 54 Craig St. W., Montreal.	6 "	50	"	.....
" 10	"	67140	I. Getz, 168 St. Lawrence Boul., Montreal.	5 "	40	"	.....

DISTRICT OF VALLEYFIELD--

1915.							
Dec. 28	Spirit of Camphor.	62915	Armand Bourgeois, St. Johns P.Q.	6 oz.	60	Vendor.	.....
1916.							
Jan. 4	"	62916	J. McLester, Alexandria.	6 "	60	"	.....
" 4	"	62917	Brock Ostrom & Son, Alexandria.	6 "	50	"	.....
" 12	"	62918	J. St. Louis, Valleyfield.	6 "	60	"	.....
" 12	"	62919	Dr. S. W. Laroche, Valleyfield	6 "	75	"	.....
" 17	"	62920	Dr. Guy, St. Johns, P.Q.	6 "	50	"	.....
" 20	"	62921	Dr. Wallace & Son, Buckingham.	6 "	65	"	.....
" 20	"	62922	F. W. Warwick, Buckingham	6 "	45	"	.....
" 28	"	62923	H. N. Davies, St. Lambert.	6 "	65	"	.....
Feb. 11	"	62924	J. B. Corneau, Farnham.	6 "	35	"	.....

DISTRICT OF OTTAWA--

1915.							
Dec. 14	Spirit of Camphor.	70587	S. S. Tripp, Arnprior.	6 oz.	50	Vendor.	.....
" 15	"	70593	O. C. Abbott, Smith's Falls.	6 "	50	"	.....
" 17	"	70601	A. Fullerton, Brockville	6 "	50	"	.....
" 17	"	70602	V. F. Kincaid,	6 "	50	"	.....
" 17	"	70603	F. R. Curry.	6 "	50	"	.....
" 17	"	70604	James Williams,	6 "	60	"	.....
" 24	"	70627	J. Shanahanhouse, Eganville.	6 "	90	"	.....

SPIRIT OF CAMPHOR.

Inspector's Report. (Is not an expression of opinion).	Results of Analysis.								Remarks and Opinion of the Chief Analyst.
	Specific gravity of Sample.	Polarization in 3 dm. tube at 20° C.		Camphor.		Strength of Alcohol used.	Kind of Alcohol used.	No. of Sample.	
	Degrees Venz.	Angular Degrees.	Per cent by weight.	Grammes per 100 cc.					
<i>Concluded.</i>									
.....	0·8366	25·5	8·85	13·4	11·7	94	Ethyl	67138	Meets legal requirements.
.....	0·8368	24·0	8·32	12·6	10·6	9	"	67139	" "
.....	0·8315	12·5	4·34	6·6	0·0	93	"	67140	Low in camphor. Adulterated.

J. J. COSTIGAN, ACTING INSPECTOR.

.....	0·8429	35·8	12·41	18·8	15·9	94	Ethyl	62915	Meets legal requirements.
.....	0·8288	.....	.....	.....	.....	.....	"	62916	Contains no camphor. Alcohol only.
.....	0·8414	25·1	8·70	13·1	11·1	92	"	62917	Meets legal requirements.
.....	0·8357	14·1	4·99	7·4	6·2	92	"	62918	Low in camphor. Adulterated.
.....	0·8737	20·2	7·01	10·3	9·3	79	"	62919	Meets legal requirements.
.....	0·9113	20·5	7·11	10·8	9·8	63	"	62920	Low in alcohol. Pass.
.....	0·8626	26·0	9·02	13·7	11·8	85	"	62921	Meets legal requirements.
.....	0·8726	18·7	6·48	9·8	8·6	80	Methyl	62922	Contains methyl alcohol. Adulterated.
.....	0·8364	17·0	6·21	9·4	7·9	92	Ethyl	62923	Slightly low in camphor. Pass.
.....	0·8145	24·0	8·64	13·1	11·0	91	"	62924	Meets legal requirements.

J. A. RICKY, INSPECTOR.

.....	0·8444	28·7	9·95	15·1	13·7	92	Ethyl	70687	Meets legal requirements.
.....	0·9131	18·2	6·31	9·5	8·7	63	"	70693	Low in Alcohol. Pass.
.....	0·8953	17·5	6·07	9·9	8·2	70	"	70601	" "
.....	0·9011	18·5	6·41	9·7	8·8	68	"	70602	" "
.....	0·9035	22·6	7·84	11·9	10·7	66	"	70603	" "
.....	0·8753	21·8	7·56	11·5	10·0	79	"	70604	Meets legal requirements.
.....	0·8534	29·7	10·30	15·6	13·3	80	"	70627	" "

BULLETIN No. 334-

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF OTTAWA-

1915.							
Dec. 29	Spirit of Camphor.	70640	Romuald Picard, 159 Rue du Pont, Hull.	6 oz.	60	Vendor.....	
" 29 "	"	70643	Modern Drug Store, Rue du Pont, Hull.	6 "	50	"	
" 29 "	"	70646	A. R. Farley, Rue Albert, Hull.	6 "	60	"	

DISTRICT OF KINGSTON-

Dec. 10	Spirit of Camphor.	71715	W. H. Medley, Kingston.....	6 oz.	75	Vendor.....	
" 10 "	"	71716	C. S. Prouse, "	6 "	60	"	
" 10 "	"	71717	T. H. Sargent, "	6 "	60	"	
" 13 "	"	71718	J. S. McKeown, Belleville....	6 "	60	"	
" 13 "	"	71719	J. V. Doyle, "	6 "	75	"	
" 14 "	"	71720	E. S. Fraser, Trenton	6 "	60	"	
" 14 "	"	71721	J. Shurie, "	6 "	30	"	
" 14 "	"	71722	O. G. Johns Cobourg	6 "	60	"	
" 15 "	"	71723	Wm. Madill, Peterboro.....	6 "	60	"	
" 15 "	"	71724	W. J. Kent, "	6 "	60	"	

DISTRICT OF TORONTO-

Dec. 14	Spirit of Camphor.	70111	T. G. Whitefield, Whitby.	6 ozs.	60	Vendor.	
" 15 "	" ..	70112	A. J. Davis, Port Perry	6 "	50	"	
" 15 "	" ..	70113	T. C. Nicholls, Uxbridge.....	6 "	55	"	
" 16 "	" ..	70114	G. B. Henderson, Cannington	6 "	40	"	
" 17 "	" ..	70115	Chas. Lugedin, Beaverton	6 "	60	"	
" 20 "	" ..	70116	T. F. O'Riley, 498 Queen St., E., Toronto.	6 "	65	"	

SPIRIT OF CAMPHOR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								Remarks and Opinion of the Chief Analyst.	
	Specific Gravity of Sample	Polarization in 2 dm. Tube at 20° C.		Camphor.		Strength of Alcohol used.	Kind of Alcohol used.	No. of Sample.		
		Degree Vents.	Angular Degrees.	Per cent by Weight.	Grammes per 100cc.					

Concluded.

After purchase, vendor stated sample was made with Columbia spirit.	0·8356	21·4	7·42	p. c.	p. c.	93	Ethyl	70640	Meets legal requirements.
	0·8248	10·9	3·79	11·2	9·4	94	Methyl	70643	Low in Camphor and contains Methyl alcohol; Adulterated.
	0·8352	23·0	7·98	11·2	10·1	94	Ethyl	70646	Meets legal requirements.

JAMES HOGAN, INSPECTOR.

.....	0·8646	21·8	7·56	11·6	9·9	83	Ethyl	71715	Meets legal requirements.
.....	0·8359	22·6	7·15	11·9	9·9	93	"	71716	" "
.....	0·8399	29·4	10·19	15·8	13·3	94	"	71717	" "
.....	0·8360	26·5	9·19	13·9	11·7	93	"	71718	" "
.....	0·8448	22·3	7·73	11·7	9·9	93	"	71919	" "
.....	0·8399	23·8	8·26	12·6	10·4	94	"	71720	" "
.....	0·9073	23·0	7·98	12·1	11·0	65	"	71721	Low in Alcohol. Pass.
.....	0·8642	22·9	7·63	11·6	10·0	84	"	71722	Meets legal requirements.
.....	0·8618	21·3	7·38	11·1	9·6	84	"	71723	" "
.....	0·8365	21·4	7·35	11·1	9·3	93	"	71724	" "

H. J. DAGER, INSPECTOR.

.....	0·8971	20·6	7·15	11·0	9·8	70	Ethyl	70111	Low in Alcohol. Pass.
.....	0·8384	28·5	9·88	14·9	12·5	94	"	70112	Meets legal requirements.
.....	0·8360	25·4	8·81	13·3	11·1	94	"	70113	" "
.....	0·8372	22·8	7·91	12·0	10·0	93	"	70114	" "
.....	0·8357	22·1	7·06	11·6	9·7	93	"	70115	" "
.....	0·9104	13·0	4·51	6·8	6·2	60	"	70116	Low in Alcohol and Camphor. Adulterated.

BULLETIN No. 344-

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF TORONTO-

1916.							
Dec. 20	Spirit of Camphor.	70117	W. K. Buckley, 69 Wilton Ave., Toronto.	6 ozs.	35	J. C. Garry, Toronto.	
" 21	"	70118	C. Fairburn, 621 Bathurst St., Toronto.	6 "	50	Vendor.	
" 21	"	70119	Owl Drug Store 990 Bloor St., W. Toronto.	6 "	50	"	
" 24	"	70120	Hanson's Drug Store, 444 Spadina Ave., Toronto.	6 "	65	Unknown	

DISTRICT OF WINDSOR-

1916.							
Jan. 11	Spirit of Camphor.	54538	J. E. Howey, Clinton.	6 ozs.	25	Vendor.	
" 11	"	54539	W. S. R. Holmes, Clinton.	6 "	75	"	
" 12	"	54548	E. R. Wigle, Goderich.	6 "	60	"	
" 12	"	54552	J. A. Campbell, Goderich.	6 "	60	"	
" 13	"	54561	C. L. Williams, Seaforth.	6 "	60	Alex. Wilson, Seaforth.	
" 14	"	54568	W. A. Karn, Woodstock.	6 "	50	Vendor.	
" 14	"	54575	N. McHardy, Woodstock.	6 "	50	"	
" 14	"	54577	E. A. Rae, Woodstock.	6 "	75	"	
" 14	"	54578	Frank Hyde, Woodstock.	6 "	90	"	
" 19	"	54586	Standard Drug Co., London.	6 "	60	"	

DISTRICT OF MANITOBA-

1915.							
Dec. 20	Spirit of Camphor.	72001	E. Casselman, Emerson.	6 oz.	65	Unknown	
" 22	"	72002	F. W. Humphries, Carman.	6 "	1 20	Nat. Drug Co., Winnipeg.	
" 22	"	72003	E. M. Sanders, Carman.	6 "	75	"	
" 23	"	72005	F. J. McCallum, Elm Creek.	6 "	60	"	
" 29	"	72006	Minnedosa Pharmacy, Minnedosa.	6 "	85	Lyman's, Montreal.	
" 31	"	72007	Hamilton Drug Co., Neepawa.	6 "	75	Nat. Drug Co., Winnipeg.	

SPIRIT OF CAMPHOR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							Remarks and Opinion of the Chief Analyst.	
	Specific Gravity of Sample.	Polarization in 2 dm. tube at 20° C.		Camphor.		Strength of Alcohol used.	Kind of Alcohol used.		
		Degrees Venta.	Angular Degrees.	Per cent by weight.	Grammes per liter.				

Concluded.

				p. c.	p. c.			
	0·8309	22·9	7·94	12·0	10·0	96	Ethyl..	70117 Meets legal requirements.
	0·8891	14·2	4·92	7·5	6·6	72	" ..	70118 Low in Alcohol and Camphor. Adulterated.
	0·8423	24·3	8·42	12·8	10·7	91	" ..	70119 Meets legal requirements.
	0·8501	22·8	7·91	12·0	10·2	90	" ..	70120 "

JOHN TALBOT, INSPECTOR.

	0·8349	22·3	7·78	11·7	9·8	91	Ethyl..	54538 Meets legal requirements.
	0·8572	17·1	5·93	9·0	7·5	92	" ..	54539 Slightly low in Camphor Pass.
	0·8709	24·3	8·42	12·8	11·1	81	" ..	54548 Meets legal requirements.
	0·8382	26·7	9·26	14·0	11·8	93	" ..	54552 "
	0·8397	21·7	7·52	11·4	9·6	92	" ..	54561 "
	0·8408	35·5	12·30	18·6	15·7	94	" ..	54568 "
	0·8386	19·9	6·90	10·5	8·7	94	" ..	54575 "
	0·8621	20·7	7·18	10·9	9·4	84	" ..	54577 "
	0·8424	23·7	8·32	12·5	10·5	91	" ..	54578 "
	0·8346	22·8	7·81	12·0	10·0	94	" ..	54586 "

J. B. COSGROVE, TEMPORARY INSPECTOR.

	0·8535	25·0	8·67	13·1	11·2	88	Ethyl..	72001 Meets legal requirements.
	0·8330	23·7	8·23	12·4	10·3	94	" ..	72002 "
	0·8439	40·5	14·32	21·3	18·0	94	" ..	72003 "
	0·8975	26·7	9·96	15·0	12·6	94	" ..	72005 "
	0·8395	31·8	11·03	16·7	14·0	94	" ..	72006 "
	0·8347	25·0	8·67	13·1	10·9	94	" ..	72007 "

BULLETIN No. 344—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher, as Given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF MANITOBA—

1916.							
Jan. 5	Spirit of Camphor	72008	MacPherson & Burnett, Souris	6 oz.	75	Nat. Drug Co., Winnipeg	
" 6	"	72009	W. Hutchings, Brannon	6 "	75	Lyman's, Toronto,	
" 6	"	72010	MacFee Drug Co., Brandon	6 "	75	Nat. Drug Co., Winnipeg.	
" 7	"	72011	Ross & McMullen, Virden	6 "	75	Vendors	

DISTRICT OF SASKATCHEWAN—

1915.							
Dec. 15	Spirit of Camphor.	71509	Thomas A. B. Ferris, Avonlea	6 oz.	75	Vendor	
" 16	"	71521	W. C. Sweet, Yellow Grass	6 "	50	"	
" 17	"	71528	O. S. Mitchell, Weyburn	6 "	75	"	
" 17	"	71529	McKinnon's Ltd., Weyburn	6 "	50	"	
" 17	"	71530	H. E. Elwin, Weyburn	6 "	75	"	

DISTRICT OF ALBERTA—

1916							
Feb. 10	Spirit of Camphor.	52315	G. H. Graydon, Edmonton	3 bot.	75	Vendor	
" 14	"	52316	T. F. Ball, Wetaskiwin	3 "	75	"	
" 15	"	52317	Camrose Drug Co., Camrose	3 "	75	Frasier-Thornton & Co., Cookshire, P.Q.	
" 15	"	52318	H. N. Johnstone, Camrose	3 "	60	Vendor	
" 16	"	52319	Palace Pharmacy, Ltd., Stettler	3 "	75	"	
" 16	"	52320	W. J. Hart, Stettler	3 "	60	"	
" 22	"	52321	Wendell Maclean, Calgary	3 "	75	"	
" 22	"	52322	MacFarlane Drug Store, Cal-	3 "	75	"	
" 22	"	52323	gary. James Findlay Drug Co., Cal-	3 "	50	Vendors	
" 23	"	52324	gary. Oliver Bros., Ltd., Calgary	3 "	75	"	

SPIRIT OF CAMPHOR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.							Remarks and Opinion of the Chief Analyst.	
	Specific Gravity of Sample.	Polarization in 2 dm. Tube at 20° C.		Camphor.		Strength of Alco- hol used.	Kind of Alcohol used.		
		Degrees Verniz.	Angular degrees	Per cent by weight.	Cinamines per 100c.				

Concluded.

.....	0·8341	23·5	8·15	p.o.	12·3	10·3	94	Ethyl..	72008	Meets legal requirements.
.....	0·8373	27·2	9·43	p.o.	14·3	11·9	94	" ..	72009	" "
.....	0·8370	25·4	8·81	p.o.	13·3	11·1	93	" ..	72010	" "
.....	0·8381	28·2	9·78	p.o.	14·8	12·4	94	" ..	72011	" "

L. H. HALL, TEMPORARY INSPECTOR.

.....	0·8358	25·0	8·67	p.o.	13·1	10·9	94	Ethyl ..	71509	Meets legal requirements.
.....	0·8371	22·8	7·91	p.o.	12·9	10·0	93	" ..	71521	" "
.....	0·8403	23·5	8·15	p.o.	12·3	10·3	93	" ..	71528	" "
.....	0·8414	26·6	9·22	p.o.	13·0	11·7	92	" ..	71529	" "
.....	0·8472	22·8	7·91	p.o.	12·0	10·1	90	" ..	71530	" "

A. W. R. MARKLEY, INSPECTOR.

.....	0·8576	19·9	6·90	p.o.	10·46	8·97	86	Ethyl ..	52315	Meets legal requirements.
.....	0·8898	10·7	3·71	p.o.	5·62	5·03	71	" ..	52316	Low in alcohol and camphor. Adulterated.
.....	0·9006	17·3	6·00	p.o.	9·09	8·27	63	" ..	52317	Low in alcohol. Pass.
.....	0·8797	21·0	7·28	p.o.	11·04	9·71	77	" ..	52318	Slightly low in alcohol. Pass.
.....	0·8810	20·0	6·94	p.o.	10·51	9·29	75	" ..	52319	" "
.....	0·8367	9·4	3·26	p.o.	4·94	4·13	91	" ..	52320	Low in camphor. Adulterated.
.....	0·8390	27·5	8·54	p.o.	14·45	12·12	93	" ..	52321	Meets legal requirements.
.....	0·8361	23·2	8·05	p.o.	12·19	10·10	93	" ..	52322	" "
.....	0·8360	19·1	6·62	p.o.	10·03	8·39	90	" ..	52323	" "
.....	0·8360	19·1	6·62	p.o.	10·03	8·39	93	" ..	52324	" "

BULLETIN No. 344—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.

DISTRICT OF ROCKY MOUNTAINS—

1915							
Dec. 14	Spirit of Camphor.	68111	Rutherford Drug Co., Nelson.	6	"	75	Vendors.....
" 14	"	68114	City Drug & Stationery Co., Nelson	6	"	75	"
" 14	"	68115	Canada Drug & Book Co., Nelson.	6	"	75	"
" 14	"	68118	Poole Drug Co., Nelson.....	6	"	75	"
1916							
Jan. 7	"	68102	The Beattie Murphy Co., Cranbrook.	6	"	75	"
" 7	"	68153	Cranbrook Drug & Book Co., Cranbrook.	6	"	75	"
" 17	"	68169	T. Stout, Rossland.....	6	"	75	Vendor.....
" 17	"	68170	Goodeve Bros., Rossland.	6	"	75	Vendors.....
Feb. 9	"	68188	E. W. Hazlewood, Trail . . .	6	"	75	Vendor

DISTRICT OF VANCOUVER—

Jan. 20	Spirit of Camphor.	55478	Vanc. Drug Co., 405 Hastings st. W., Vancouver.	6 oz.	50	Vendors.....	
" 20	"	55479	Marett & Reid, 157 Hastings st. W., Vancouver.	6 "	75	"	
" 21	"	55480	W. M. Harrison & Co., Ltd., Roger's Building, Granville st., Vancouver.	6 "	60	"	
" 21	"	55481	Law's Pharmacy, Davis and Granville st., Vancouver.	6 "	75	"	
" 21	"	55482	Claude Meddell 37 Hastings st. E., Vancouver	6 "	50	"	
" 21	"	55483	Owl Drug Co., Ltd., Main and Hastings st., Vancouver.	6 "	50	"	
" 21	"	55484	Brown & Beaton, 600 Main st., Vancouver.	6 "	65	"	
" 21	"	55485	Ernest Shaff, 800 Main st., Vancouver.	6 "	75	"	
" 22	"	55486	McLennan Drug Store, 750 Columbia st., New Westminster.	6 "	50	"	
" 22	"	55487	D. S. Curtis & Co., 635 Columbia st., New Westminster.	6 "	60	"	

SPIRIT OF CAMPHOR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								Remarks and Opinion of the Chief Analyst.	
	Specific Gravity of Sample.	Polarization in 2 dm. tube at 20° C.		Camphor.		Strength of Alcohol used.	Kind of Alcohol used.	No. of Sample.		
		Degrees Vents.	Angular Degrees.	Per cent by Weight.	Grammes per 100cc.					

THOMAS PARKER, INSPECTOR.

.....	0.8390	24.1	8.36	p. c.	p. c.	Ethyl.	68111	Meets legal req.
.....	0.8370	20.8	7.21	10.93	9.15	93	"	68114
.....	0.8633	26.3	9.12	13.82	11.93	85	"	68115
.....	0.8384	22.0	7.03	11.56	9.76	92	"	68118
.....	0.8391	25.9	8.98	13.61	11.42	93	"	68152
.....	0.8395	21.7	7.52	11.40	9.55	92	"	68153
.....	0.8376	26.2	9.00	13.77	11.53	93	"	68169
.....	0.8385	20.8	7.21	10.93	9.17	92	"	68170
.....	0.8413	30.7	10.65	16.13	13.57	93	"	68188

E. J. MORGAN, INSPECTOR.

.....	0.8351	25.3	8.77	13.29	11.10	94	Ethyl.	55478	Meets legal requirements.
.....	0.8392	21.5	7.46	11.30	9.48	92	"	55479	"
.....	0.8503	23.0	7.98	12.09	10.28	89	"	55480	"
.....	0.8394	21.5	7.46	11.30	9.48	92	"	55481	"
.....	0.8750	21.2	7.35	11.14	9.75	86	"	55482	"
.....	0.8381	23.4	8.12	12.30	10.31	93	"	55483	"
.....	0.8370	23.5	8.15	12.35	10.33	93	"	55484	"
.....	0.8669	18.3	6.35	9.62	8.34	82	"	55485	"
.....	0.8377	24.0	8.32	12.61	10.56	93	"	55486	"
.....	0.8410	28.8	9.99	15.13	12.74	93	"	55487	"

BULLETIN No. 344—

Date of Collection.	Nature of Sample.	No. of Sample.	Name and Address of Vendor.	Cost.		Name and Address of Manufacturer or Furnisher as given by the Vendor.	
				Quantity.	Cents.	Manufacturer.	Furnisher.
DISTRICT OF VICTORIA—							
1916.							
Mar. 7	Spirit of Camphor.	71318	Ivel's Pharmacy, 1415 Government st., Victoria.	6 oz.	75	Vendor	
" 8	"	71319	John Cochrane, 1300 Douglas st., Victoria.	6 "	75	"	
" 8	"	71320	Terry's Drug Store, Pandora and Douglas sts., Victoria.	6 "	75	"	
" 8	"	71321	W. Jackson & Co., 1411 Douglas st., Victoria.	6 "	75	"	
" 8	"	71322	Fernwood Pharmacy, 1301 Gladstone ave., Victoria.	6 "	75	"	
" 8	"	71323	W. W. Gardins, Pandora and Cook sts., Victoria.	6 "	75	"	
" 8	"	71324	Aaronson & Elwin, 1101 Fort st., Victoria.	6 "	75	"	
" 9	"	71325	D. E. Campbell, Douglas and Fort sts., Victoria.	6 "	75	"	
" 9	"	71326	Hall & Co., 702 Yates st., Victoria.	6 "	75	"	
" 9	"	71327	Dean & Hiscocks, 627 Yates st., Victoria.	6 "	75	"	

SPIRIT OF CAMPHOR.

Inspector's Report. (Is not an expression of opinion.)	Results of Analysis.								Remarks and Opinion of the Chief Analyst.	
	Specific gravity of Sample.	Polarisation in 2 dm. tube at 20° C.		Camphor.		Strength of Alcohol used.	Kind of Alcohol used.	No. of Sample.		
		Degress Ventsz.	Angular Degrees.	Per cent by weight.	Grammes per 100 cc.					
D. O'SULLIVAN, INSPECTOR.	0·8360	24·0	8·32	12·61	10·54	94	Ethyl...	71318	Meets legal requirements.	
	0·8370	23·5	8·18	12·35	10·33	93	"	71319	" "	
	0·8446	20·8	7·21	10·93	9·23	90	"	71320	" "	
	0·8370	24·5	8·50	12·87	10·78	93	"	71321	" "	
	0·8350	21·4	7·42	11·24	9·39	93	"	71322	" "	
	0·8378	27·2	9·43	14·30	11·97	93	"	71323	" "	
	0·8360	21·8	7·56	11·46	9·58	93	"	71324	" "	
	0·8390	24·0	8·32	12·61	10·58	93	"	71325	" "	
	0·8375	23·4	8·12	12·30	10·30	93	"	71326	" "	
	0·8411	26·3	9·12	13·82	11·62	92	"	71327	" "	